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Europäisches  
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Erhalten  
13 NOV 2003  
Strehl et al.

Datum/Date

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Zeichen/Ref./Réf. EPA-63215	Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°. 03015911.5-1521-
Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire Ajinomoto Co., Inc.	

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☐ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☒ abstract

☐ title

☐ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract: NONE

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





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# PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention EP 03 01 5911  
shall be considered, for the purposes of subsequent  
proceedings, as the European search report

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	<p>COTTER P A ET AL: "CONTRIBUTION OF THE FNR AND ARCA GENE PRODUCTS IN COORDINATE REGULATION OF CYTOCHROME O AND D OXIDASE CYOABCDE AND CYDAB GENES IN ESCHERICHIA-COLI" FEMS MICROBIOLOGY LETTERS, vol. 91, no. 1, 1992, pages 31-36, XP008024029 ISSN: 0378-1097 * page 32, right-hand column, paragraph 1; table 1 *</p> <p style="text-align: center;">--- -/--</p>	1-10	<p>C12P13/08 C12P13/10 C12P13/14 C07K14/245</p>
			<p>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</p> <p>C12P C07K</p>
<p><b>INCOMPLETE SEARCH</b></p> <p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims.</p> <p>Claims searched completely:</p> <p>Claims searched incompletely:</p> <p>Claims not searched:</p> <p>Reason for the limitation of the search:</p> <p>see sheet C</p>			
Place of search		Date of completion of the search	Examiner
BERLIN		3 November 2003	ALCONADA RODRIG..., A
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document</p> <p>T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &amp;: member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.02 (P04C07)



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## PARTIAL EUROPEAN SEARCH REPORT

Application Number  
EP 03 01 5911

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (InLCI.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	IUCHI S ET AL: "ARC-A DYE A GLOBAL REGULATORY GENE IN ESCHERICHIA-COLI MEDIATING REPRESSION OF ENZYMES IN AEROBIC PATHWAYS" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES, vol. 85, no. 6, 1988, pages 1888-1892, XP008024028 1988 ISSN: 0027-8424 * page 1891, left-hand column, last paragraph - right-hand column, paragraph 1; table 1 * * table 2 *	1-10	
Y	---	10	TECHNICAL FIELDS SEARCHED (InLCI.7)
X	NYSTROM THOMAS ET AL: "Bacterial defense against aging: Role of the Escherichia coli ArcA regulator in gene expression, readjusted energy flux and survival during stasis" EMBO (EUROPEAN MOLECULAR BIOLOGY ORGANIZATION) JOURNAL, vol. 15, no. 13, 1996, pages 3219-3228, XP008024026 ISSN: 0261-4189 * page 3226, left-hand column, paragraph 2 *	1-10	
Y	DATABASE WPI Section Ch, Week 200114 Derwent Publications Ltd., London, GB; Class B05, AN 2001-138133 XP002260035 & WO 01 02544 A (AJINOMOTO CO INC), 11 January 2001 (2001-01-11) * abstract *	10	
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EPO FORM 1503 83.82 (P4/C10)

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Office

## PARTIAL EUROPEAN SEARCH REPORT

Application Number  
EP 03 01 5911

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	DATABASE WPI Section Ch, Week 200114 Derwent Publications Ltd., London, GB; Class B05, AN 2001-138135 XP002260036 & WO 01 02546 A (AJINOMOTO CO INC), 11 January 2001 (2001-01-11) * abstract * -----	10	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)

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EPO FORM 1503 03.02 (P04C10)



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INCOMPLETE SEARCH  
SHEET C

Application Number

EP 03 01 5911

Claim(s) searched incompletely:

1-10

Reason for the limitation of the search:

Present claims 1-10 relate to a gamma-proteobacterium defined by reference to two different desirable characteristics or properties, namely, that it is modified so that an ArcA protein does not normally function and that has the ability to produce a target substance. The claims cover all gamma-proteobacteria having this characteristics or properties, whereas the application provides support within the meaning of Article 84 EPC and disclosure within the meaning of Article 83 EPC for only a very limited number of such bacteria. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 84 EPC). An attempt is made to define the bacteria by reference to results to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the gamma-proteobacteria wherein the ArcA protein has been inactivated by disruption of the ArcA gene (see for example 1) and for the strains that are able to produce an L-amino acid (see examples 2, 3 and 5).

# ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 03 01 5911

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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03-11-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0102544 A	11-01-2001	JP 2003180348 A	02-07-2003
		AU 5707200 A	22-01-2001
		WO 0102544 A1	11-01-2001
WO 0102546 A	11-01-2001	JP 2003144161 A	20-05-2003
		AU 5571100 A	22-01-2001
		WO 0102546 A1	11-01-2001

EPO FORM P4459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82